

Title (en)

SUB-MODULE FOR A MODULAR MULTI-LEVEL CONVERTER

Title (de)

SUBMODUL FÜR EINEN MODULAREN MEHRSTUFENUMRICHTER

Title (fr)

SOUS-MODULE DESTINÉ À UN CONVERTISSEUR MODULAIRE À ÉTAGES MULTIPLES

Publication

**EP 2564501 B1 20180725 (DE)**

Application

**EP 11717988 A 20110420**

Priority

- DE 102010018970 A 20100427
- EP 2011056334 W 20110420

Abstract (en)

[origin: WO2011134865A2] The invention relates to a sub-module (10) for forming a multi-level converter (1) having a power accumulator (11), a power semiconductor circuit (12) which is arranged in parallel to the power accumulator (11) and has controllable power semiconductor valves (14, 15), a first connecting terminal (17) and a second connecting terminal (18), a power accumulator voltage drop at the level of the power accumulator (11) or a zero voltage at the level of the connecting terminals (17, 18) being producible depending on how the power semiconductor valves (14, 15) are controlled. The aim of the invention is to improve said sub-module such that as high a voltage as possible can be generated at its connecting terminals while at the same time increasing its reliability. Every power semiconductor valve (14, 15) comprises a series connection of power semiconductor units (19) that can be switched off and have the same direction of passage, every power semiconductor unit (19) being electrically conducting counter to the direction of passage.

IPC 8 full level

**H02M 7/23** (2006.01); **H02M 7/217** (2006.01)

CPC (source: EP US)

**H02M 7/483** (2013.01 - EP US); **H02M 7/4835** (2021.05 - EP US); **H02M 7/797** (2013.01 - EP US); **H02M 1/088** (2013.01 - EP)

Cited by

US11011911B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**DE 102010018970 A1 20111027**; EP 2564501 A2 20130306; EP 2564501 B1 20180725; ES 2692670 T3 20181204; PL 2564501 T3 20190228; WO 2011134865 A2 20111103; WO 2011134865 A3 20121227

DOCDB simple family (application)

**DE 102010018970 A 20100427**; EP 11717988 A 20110420; EP 2011056334 W 20110420; ES 11717988 T 20110420; PL 11717988 T 20110420